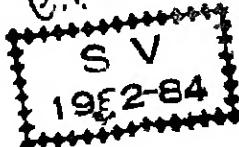


NATIONAL COUNCIL  
OF  
**EDUCATIONAL RESEARCH AND TRAINING PROJECT**

for further expansion and testing of the cognate method  
of teaching Dravidian languages

R-ERIC

ERIC



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**P H O N O L O G Y      O F      M A L A Y A L A M**

**B A S E D      O N**  
= = = = =      = =

**T H E      N E W S      P A P E R**  
= = =      = = = = =      = = = = =

**K E R A L A      K A U M U D I**  
= = = = =      = = = = = = =

**D A T E D .      22 - 6 - 1973.**  
= = = = =      = = = = = = =

**V. R. PILLAI**

**S R. FELLOW.**

**NCERT PROJECT.**

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C O N T E N T S  
= = = = =

INTRODUCTION

Inventory of Phonemes Vowels

Consonants.

Classification of Vowels

Classification of Consonants

Examples of Contrast

Vowels

Consonants

Distribution of allophones.

Vowels

Consonants

Syllabic structure

An experimental study of the Patterns of Consonant Clusters

Clusters (General)

Phonotactics

Distribution of Vowels

Distribution of Consonants



A PHONEMIC OUTLINE OF THE LANGUAGE IN THE MALAYALAN NEWSPAPER

"KERALA KAUMUDI". DATED. 22 - 6 - 1973.

The purpose of the Present analysis is to Produce an outline of the Phonology of Malayalam as gleaned from the News-paper dialect.

The analysis is based on the Index Consiting of more than 4300 word items with a total frequency of 14000/ words, prepared from the above newspaper.

Since this analysis is oriented from the written representation of the language the narrow phonetic transcription is not intended. However I have made use of the earlier transcripational system followed in the Department of Linguistics to identify the phonetic realization of the graphemes.

There are 49 graphic units found in the newspaper language - 12 for vowels and 37 for consonants.

Of 12 vowels the long vowels and diphthongs (ai and aw) are taken as clusters of identical and non-identical vowels. Thus we get five writing units of vowel phonemes.

After delimitation the phonemes posited are 42 in number i.e., 5 vowels and 37 consonants.

An onglide  $\text{[y]}$ - $\text{[j]}$  can be noticed in high front and mid-front vocoids when pronounced. Similarly an onglide  $\text{[w]}$ - $\text{[j]}$  can be identified with the high back and mid back vocoids. Since it is the general Characteristic of the language it is not treated with individual instances.



## INVENTORY OF PHONEMES

### Segmental Phonemes

#### VOWELS :

i u

e o

a

#### CONSONANTS :

p	b	t	d	R	t	d	c	j	k	g
---	---	---	---	---	---	---	---	---	---	---

ph	bh	th	dh		th	dh	ch	jh	kh	gh
----	----	----	----	--	----	----	----	----	----	----

m	n		n	n		n		n		n
---	---	--	---	---	--	---	--	---	--	---

l	l		l
---	---	--	---

r

s	s	š	h
---	---	---	---

v

y



C L A S S I F I C A T I O N   O F   V O W E L S

	front	Central	Back
High	i		u
Mid	e		o
Low		a	



C O N S O N A N T S  
= = = = = = = = = =

	Bilabial	Labio Dental	Dental	Alveolar	Retroflex	Palatal	Velar	
Stops	p b	t d	r	t̪	d̪	c	j	χ k g
Aspirated Stops	ph bh	th dh		t̪h	d̪h	ch	jh	k̪h gh
Nasals	m			n	ñ	ñ	ñ	ñ
Laterals			l	ñ	ñ	ñ	ñ	ñ
Flap			r	ñ	ñ	ñ	ñ	ñ
Fricatives	s	š	š	š	š	š	š	š
Continents	v			v		v		v



CLASSIFICATION OF CONSONANTS

MANNER OF ARTICULATION :

	Voiceless	Voiced	Total
Stops	11	10	21
Nasals	..	6	6
Laterals	..	3	3
Flap	..	1	1
Fricatives	4	..	4
Continuents	..	2	2
Total	15	22	37

POSITION OF ARTICULATION

	Voiceless	Voiced	Total
Bilabial	2	3	5
Labio-dental	..	1	1
Dental	2	3	5
Alveolar	2	3	5
Retroflex	3	4	7
Palatal	3	5	8
Velar	3	3	6
Total	15	22	37



E X A M P L E S   O F   C O N T R A S T

V O W E L S

S H O R T   V O W E L S

W O R D   I N I T I A L

	e	a	o	u
i	x	x	x	x
e		x	x	x
a			x	x
o				x

e.g.

/ i e a o /

- |                          |               |
|--------------------------|---------------|
| /in <u>n</u> u/          | 'to day'      |
| /e <u>n</u> n <u>u</u> / | 'which day'   |
| /ə <u>n</u> nu/          | 'on that day' |
| /o <u>n</u> nu/          | 'one'         |

/ i e a u /

- |        |                 |
|--------|-----------------|
| /iri/  | 'sit (you, sg)' |
| /*eri/ | 'burning'       |
| /ari/  | 'rice'          |
| /*uri/ | 'a measure'     |

/ o u /

- |         |             |
|---------|-------------|
| / oppu/ | 'signature' |
| /*uppu/ | 'salt'      |



WORD MEDIAL

	e	a	o	u
i	x	x	x	x
e		x	x	x
a			x	x
o				x

Eg. / i e a o u /

/kitti/	'got'
/ketti/	'tied'
*/katti/	'thickness'
*/kotti/	'knowked'
/kutti/	'child'

WORD FINAL

	e	a	o	u
i	x	x		x
e		x		x
a				x
o				

Eg. / i e a u /

/vari/	'row'
/vare/	'till'
*/vara/	'line'
*/taru/	'tree'



SHORT VOWEL VS LONG VOWEL

WORD INITIAL

	ii	ee	aa	oo	uu
i	x				
e		x			
a			x		
o				x	
u					x

Eg.

/i ii/

- /itu/ 'to put'  
/iitu/ 'mortgage : securitry'

/e ee/

- /etu/ 'to take'  
/\*eetu/ 'folio : sheet'

/a aa/

- /ati/ 'food'  
/aati/ 'swing'

/o oo/

- /oti/ 'to break'  
/ooti/ 'ran'

/u uu/

- /\*uma/ 'Goddess Parvathi'  
/\*uuma/ 'dumb one'



WORD MEDIAL

	ii	ee	aa	oo	uu
i	x				
e		x			
a			x		
o				x	
u					x

/i ii/

/vitu/ 'to release'

/viitu/ 'house'

/e ee/

/petta/ 'pair' : 'that which envolved'

/peetta/ 'place name'

/a aa/

/patram/ 'newspaper'

/paatram/ 'vessel'

/o oo/

/koccine/ 'child (o o)

/kooocinc/ 'coach' (foot-ball) OO)

/u uu/

/kuti/ 'house'

/kuuti/ 'increased'



**WORD FINAL**

	ii	ee	oo	aa	uu
i	x				
e		x			
a					
o				x	
u					x

E.g.

/1 11/

mani	'bell'
*manii	'personal name' (wo)

100

<b>makale</b>	'daughter' (oc)
<b>*makalee</b>	daughter (voc)

/ə əʊ/

aaka	'to be : become'
aakaa	'not to be : not to become'

/u uu/

*aa <sup>tu</sup>	sheep
aa <sup>tuu</sup>	'please swing on/dance'



LONG VOWELS

WORD INITIALS

ee	aa	oo	uu
ii	x		
ee	x		
'aa		x	
oo			x

Eg.

/ii ee oo uu /

/iit <u>u</u> /	'security'
/*eet <u>u</u> /	'folio'
/*aat <u>u</u> /	'sheep'
/oot <u>u</u> /	'tile'
*/uut <u>u</u> /	'woof' : 'narrow'



word medial

66

	ee	aa	oo	uu
ii	x	x	x	x
ee		x	x	x
aa			x	x
oo				x

Eg. /ii ee aa oo uu/

*kiitam	'worm' : 'vermes'
keetu	'defeat' : 'danger'
kaatu	'forest'
kooti	'crore'
*kuutu	'nest'

WORD FINAL

	ee	aa	oo	uu
ii	x	x	x	x
ee		x	x	x
aa	.		x	x
oo				x

Eg. /ee ii aa oo uu/

/vaatii/	'come on!' (a term used to call for inferior girls or women)
/vaataa/	'come on !' ( a term used to call for inferior boys or me)
/paatoo/	'difficulty!' (emp.)
/paatee/	'wholly'
/paatuu/	'Please sing!'



EXAMPLES OF CONTRAST

/p, ph/	
/pala/	'many'
/phalam/	'result'
/p, b/	
/pattu/	'ten'
/bat̪ta/	'allowance'
/p, bh/	
/paasa/	'personal name'
/bhaasa/	'language'
/p, t/	
/pala/	'many'
/tala/	'head'
/p, th/	
/kappal/	'ship'
/katha/	'story'
/p, d/	
/paanuur/	'place name'
/daanam/	'gift'
/p, dh/	
/panam/	'money'
/dhanam/	'wealth'
/P, R/	
/paattu/	'song'
/Raattu/	'wheel'
/p, t̪/	
/pikkaRRu/	'picket'
/tikkaRRu/	'ticket'
/p, th/	
* /paapam/	'sin'
/paatham/	'lesson'



/p,d/		
	/pattu/	'tén'
	/dattu/	'death'
/p,dh/		
	*/ ruudham/	'rooted'
	/ruupam/	'figure : form'
/p,c/		
	/piri/	'twist'
	/ciri/	'laughter'
/p, ch/		
	/patram/	'newspaper'
	*/chatram/	'umbrella'
/p, j/		
	/paati/	'half'
	/jaati/	'caste'
/p, jh/		
	/pala/	'many'
	*/jhala/	'girl : daughter'
/p,k/		
	/pala/	'many'
	/kala/	'art'
/p,kh/		
	*/paati/	'half'
	/khaadi/	'khadi'
/p,g/		
	/panam/	'money'
	/ganam/	'multitude'
/p, gh/		
	*/pattam/	'kite'
	/ghattam/	'stage'
/p,m/		
	/pati/	'entrance : step'



/p, <u>u</u> /		
	/peere/	'persons' oo
	/neere/	'straight'
/p, <u>n</u> /		
	* /appam/	'bread'
	/annam/	'rice'
/p, <u>n̄</u> /		
	* /kappu/	'cup'
	/kannu/	'eye'
/p, <u>ñ</u> /		
	/petti/	'box'
	* /netti/	'shocked'
/p, <u>t̄</u> /		
	/uRappu/	'security'
	/uRañtu/	'to sleep'
/p, <u>l̄</u> /		
	/pakṣam/	'side' : '
	/lakṣam/	'lakh'
/p, <u>l̄</u> /		
	/uppu/	'salt'
	/ullu/	'in side'
/p, <u>l̄l̄</u> /		
	/eppool/	'at whattime'
	/eluti/	'wrote'
/p, <u>r̄</u> /		
	* /antu/	'once upon a time'
	/rañtu/	'two'
/p, <u>s̄</u> /		
	/padyam/	'poetry'
	/satyam/	'truth'
/p, <u>s̄s̄</u> /		
	/payar/	'pod'
	/sayar/	'share'
/p, <u>s̄s̄</u> /		



/sata/	'hundred'
/ p, h /	
*/paaram/	'very much'
/haaram/	'garland'
/p, v/	
/pala/	'many'
/vala/	'net'
/p, y/	
/paatram/	'vessel'
/yaatra/	'journey'
/ph, b, t, d, o, ch, j, jh, k, kh/	
/phalam/	'result'
/balam/	'strength'
/talam/	'palm' : 'place below'
*/dalam/	'petal'
/calam/	'pus'
*/chalam/	'lie'
/jalam/	'water'
*/jhala/	'daughter'
/kalam/	'pot'
*/khalam/	'tank'
/ph, bh /	
*/viphalam/	'unfruitful'
/vibhavam/	'resource'
/ ph, th /	
*/kaphem/	'phelegm'
/katha/	'story'
/ ph, dh /	
/phalem/	'result'
/dhanam/	'wealth'
/ph , R/	
/phiisu/	'fees'
/Riittu/	'wreath'



/ ph, R/

/phiisu/ 'fees'

/Riittu/ 'wreath'

/ph, t, d,/

/phaaktu/ 'FACT'

/taaksu/ 'tax'

/daaktar/ 'doctor'

/ph, g, m/

\* /phanam/ 'hood'

/ganam/ 'multitude'

/manam/ 'smell'

/ph, gh/

\* /phaasan/ 'fashion'

/ghoosam/ 'huzza' -

/ph, n/

/phalam/ 'result'

\* /nalam/ 'soon'

/ph, n, ñ, l, ɿ, ɿ, r, y/

/kapham/ 'phlegm'

/kanam/ 'weight'

\* /kanam/ 'drop'

/kalam/ 'pot'

\* /kalam/ 'yard'

\* /kala/ 'slender'

/karam/ 'tax'

\* /kayam/ 'eddy'

/ph, ñ, ñ/

/kaaphi/ 'coffee'

\* /kañni/ 'gruel'

\* /kañni/ 'burnt'



/ph, n, ñ/		
/kaaphi/	'coffee'	
/ph, s, v/		
/phalam/	'result'	
/sthalam/	'place'	
*xvalam/	'right side'	
/ph, s/		
/phoolsu/	'force'	
/sooppu/	'shop'	
/b, bh/		
/batte/	'allowance'	
/bhitti/	'wall'	
/b, R/		
/boordu/	'board'	
/Roodu/	'road'	
/b t/		
/biskaRRu/	'biscuit'	
/tikkaRRu/	'ticket'	
/b, d/		
/baanku/	'bank'	
/daansu/	'dance'	
/ b, g /		
/boordu/	'board'	
/gooldu/	'gold'	
/b, m, n /		
/baala/	'girl'	
/maala/	'necklace'	
/naalu/	'four'	
/b, n/		
/byuutti/	'beauty'	
/nyuusu/	'news'	
/ b n /		
*/klaabu/	'hotel'	



/ b, ḫ /		
*/bantu/	'bund'	
*/nantu/	'crab'	
/ b, l /		
/boodham/	'consciousness'	
/lookam/	'world'	
/ b, r /		
/baadha/	'trouble'	
/raadha/	'personal name'	
/ b, s, v /		
/balam/	'strength'	
/sthalam/	'place'	
*/valam/	'right side'	
/ bh, t /		
/bharanam/	'administration'	
/taranam*	'should give'	
/ bh, th /		
/abhayam/	'shelter'	
/athavaa/	'if not : or'	
/ bh, d /		
/bhaksana/	'food'	
/dakṣina/	'south'	
/ bh, dh /		
/bharanam/	'administration'	
/dhaarana/	'understanding'	
/ bh, R /		
/bhitti/	'wall'	
/Riittu/	'wreath'	
/ bh, C /		
/bhaaram/	'weight'	
/caaram/	'ash'	



/ bh, j /		
/bhayam/	'fear'	
/jayam	'success'	
/ bh k /		
bhavanam	'house'	
kavanam	'literary work'	
/ bh, kh /		
bhavanam	'house'	
khanam	'mining'	
/ bh, g /		
/bhra <u>a</u> ntan/	'Brahmin' <del>X</del>	
/graamam/	'village'	
/ bh, gh / .		
/bhattu/	'a caste'	
/ghattam/	'stage'	
/ bh, m, n, l /		
/bhayam/	'fear'	
/*mayam/	'softness'	
/nayam/	'policy'	
/layam/	'absorption'	
/ bh, n /		
/vibhavam/	'resources'	
/vinayam/	'humbleness'	
/ bh, r /		
/bhuumi/	'earth'	
/ruupa/	'ruppee'	
/ bh, s /		
/bhaaram/	'weight'	
/saaram/	'jist'	
/ bh s /		
/vibhavam/	'resource'	
/vi <u>g</u> yam/	'subject'	



/ bh, s /		
	bhikṣa	'alms'
	sikṣa	'punishment'
/ bh, h /		
	/bhāaram/	'weight'
	*/haaram/	'garland'
/ bh, v /		
	'vibhāgam'	'portion' : 'division'
	vivāham	'marriage'
/ bh, y /		
	bhavānam	'house'
	*yavanam	'greek' man'
/ t, th /		
	/kattu/	'letter'
	/katha/	'story'
/ t, a /		
	/taanum/	'self- and'
	/daanam/	'gift'
/ t dh /		
	/tiiram/	basin : coast
	/dhiiram/	'bold'
/ t, R /		
	/tootu/	'shell'
	/Roodu/	'road'
/t, ṭ /		
	/tinnu/	'eat' ( you sg)
	*/ṭinnu/	'tin'
/ t, th /		
	*/paata/	'path'
	/paatham/	'lesson'



/t, c /		
	/tala/	'head'
	/cila/	'scme'
/ t, g /		
	/tiri/	'wick'
	/giri/	'personal name'
/ t, gh /		
	tattam	'vessel'
	ghattam	'stage'
/ t, m, n, v /		
	/tati/	'timber'
	/mati/	'laziness'
	/nati/	'actresses'
	/vati/	'stick'
/ t, n, n̄ /		
	/pata/	'foam'
	*/pana/	'palm tree'
	/panam/	'money'
/ t, n̄ /		
	/tahhal/	' a muslim caste'
	/nannal/	'we'
/ t, ñ /		
	/muutta/	'elder'
	*/muuhna/	'owl'
/ t, l /		
	/tala/	'head'
	*/late/	'creeper'
/ t, l̄ /		
	*/vita/	'wowing'
	/vila/	'ropes'
/ t, l̄ /		
	*/kooli/	'hen'
	*/kooti/	'cut'



/ t, r /

*/taṇṭu/	'stem'
/raṇṭu/	'two'

/ t, e, ē /

/tooppu/	'fertile land'
/sooppu/	'soāp'
/sooppu/	'shop'

/ t, ī /

/pata/	'foam'
/pasa/	'gum'

/ t, h /

/tanikku/	self
/hanikka/	to kill

/t , y /

/tantram/	'taot'
/yantram/	'machine'

/ th, R, t, o, k, m, n, m, n, ḥ, l, l, l, r, s, y /

/katha/	story
/kaRa/	stain
/kata/	shop
*/kacca/	cloth
/kakka/	shell
*/kammal/	ear or <u>n</u> ament
/kanni/	' a month ' (in M E)
/kaṇṇu/	'eye'
*/kaṇṇi/	'rice gruel'
*/kahñi/	'burnt'
/kalaz/	'art'
*/kala/	'weed'
*/kala/	'young tree cut for a post'
/kara/	'border-line'
*/kasavu/	lace of gold or silver
/kayar/	rope



/th, d, dh, th /		
* /patham/	'path'	
/padam/	'word'	
/vidham/	'manner'	
/paatham/	'lesson'	
/ d, dh /		
/daanam/	'gift'	
/dhanam/	'wealth'	
/ d, R, t, th /		
/paadam/	'foot'	
/peaRa/	'rock'	
* /paatam/	'field'	
/paatham/	'lesson'	
/ d, ḍ, ḍh/		
/vriddhi/	'development'	
* /vidhi/	'fool'	
/ d, g, gh /		
/daanam/	'gift'	
/gaanam/	'song'	
/ghanam/	'weight'	
/ d, m /		
/daanam/	'gift'	
/maanam/	'prestige'	
/ d, n /		
/dalam/	'petal'	
* /nalam/	'soon'	
/ d, th, u, ɻ, ɻ̄\$, ɻ̄, l, ɻ̄, r, s, h, y /		
* /medam/	'proud'	
/matham/	'house'	
/manam/	'mind'	
/manam/	'smell'	
/mañña/	'yellow'	



/mañhi/	'became dim'
/mala/	'mountain'
/mala/	'rain'
/maram/	'tree'
*/masi/	'ink'
/mahaan/	'great man'
*/mayam/	'softness'
/ d, s /	
/dukham/	'sorroufulness'
/sukham/	'conformess'
/ d , ḫ /	
/deessam/	'country'
/śeeṣam/	'remaining port'
/d, v /	
/dattu/	'adoption'
/vittu/	'seed'
/ d, ṥ /	
/paadam/	'foot'
/paalem/	'rail'
/ dh, R /	
madhu	'personal name'
*maRu	'mole'
/ dh, ṭ /	
/vidhu/	'moon'
/vitu/	'to let free'
/ dh, o /	
/ <sup>h</sup> oiira/	'bold woman'
/oiira/	a kind of vegetable
/ dh, j, g, gh, m, h, v /	
/dhanam/	'wealth'
/janam/	'people'
/ganam/	'multitude'



/ghanam/	'weight'
*/manam/	'mind'
/hananam/	'killing'
/vanam/	'forest'
/ dh, k /	
/dhaarana/	'understanding'
/kaaranam/	'reason'
/ ah, n /	
/maadhavan/	'personal name'
*/maanavan/	'man'
/ ah, u /	
/dhiiram/	'boldness'
/niiram/	'water'
/ dh, n, ñ, ñ, l, ll /	
/madhu/	'personal name'
/mani/	'bell'
/manna/	'yellow'
/maññi/	'became <del>dim</del> <sup>im</sup> '
/mala/	'mountain'
/malu/	'axe'
/ dh, r /	
*/vidhi/	'fate'
/viri/	'cappet'
/ dh, e /	
/vidhem/	'manner'
*/visam/	'poison'
/ dh, y /	
*/dhaatri/	'step mother'
/yaatra/	'journey'
/ R, th /	
/paaRaśmaka/	'place name'
/paathasaala/	'soheol'



/ R, ḍ /

/Rayil/ rail

/ḍayal/ dial

/ R, ch /

\* /puccham/ 'contempt'

/puRRuy/ 'mole-hill'

/ R, j /

\* /kuuRa/ 'cloth'

/kuuJa/ 'goblet'

/ t, ḍh /

\* /viddhi/ 'fool'

/vittu/ 'let free'

/ t, ch p /

/tutam/ 'a measure'

/tucham/ 'littleness'

/ t, j /

\* /kuute/ 'receiptaculam'

/kuuJa/ 'goblet'

/t jh /

\* /taṅkaaram/ 'twang'

\* /jhaṅkaaram/ 'sibiliation' : 'hiss'

/ t, kh /

/muttam/ 'place name'

/mukham/ 'face'

/ t, g /

/tauvar/ 'tower'

/gauravam/ 'seriousness'

/ t, gh /

\* /meetam/ 'a month (in M.E.)'

/meegham/ 'cloud'



/ t̪, s̪ /

	/mati/	'laziness'
	/masi/	'ink'

/ t̪ , s̪ /

	<u>nati</u> cca	'Pretended- which'
	<u>na</u> śicca	'perished - which'

/ t̪, h /

	/ati/	'foot'
	* <u>p</u> ahi/	'snake'

/ t̪, v /

	/paatam/	'field'
	/paavam/	'poor'

/ th, d̪ /

	*/ <u>pi</u> itham/	'stool'
	* <u>p</u> iida/	'ailment'

/ th, c, j, k /

	*/ <u>matha</u> m/	'house'
	/macou/	'ceiling'
	*/ <u>mag</u> jā/	'marrow'
	/makan/	'son'

/ th, m /

	* <u>sathi</u> cou/	'betrayed'
	/śamiccu/	'appressed'

/ d̪, c /

	/dansu/	'dance'
	/caansu/	'chance'

/ d̪, j /

	/dayal/	'dial'
	/jayil/	'jail'



/ ḍ, ḍ̪ /

/dattu/	'death'
/kattu/	'letter'

/ ḍ̪, ḡ, ṡ, ṣ, ṣ̪ /

/ḍaansu/	'dance'
/gaanam/	'song'
/maanam/	'prestige'
*/naanam/	'name'
*/yaanam/	'journey'

/ ḍ̪, ṡ, ṣ̪, ḡ, ḣ, ḩ /

/seḍḍu/	'shed'
/pen्नu/	'girl'
/neññu/	'chest'
/teññu/	'coconut tree'
*/ellu/	'bone'
*/eḷḷu/	'gingelly'

/ ḍ̪, ḫ /

/piida/	'ailment'
/pila/	'fine'

/ ḍ̪, ṹ /

*/viḍḍhi/	'fool'
/viri/	'carpet'

/ ḍ̪, ṣ̪ /

/Roodu/	'road'
*/Roosu/	'rose'

/ ḍ̪, ṣ̪ /

*/ḍaappu/	'prescription'
/saappu/	'shop'

/ ḍ̪, ṣ̪ /

/ḍaansu/	'dance'
*/ṣaanti/	'peace'



/ d, v /

/dayal/	'dial'
*/vayal/	'field'

/ dh, c, m, n /

/vid̪hi/	'fool'
*picci	'jasmine'
/vimmi/	'having suffocated'
/vin̪hi/	'having got pain'

/ dh, k, l, s, v /

/muudhan/	'numekull'
/muukan/	tongue- tied : dump
/muukan/	'tongue - tied: dump'
/muulamp/	'reason'
* muusa/	'mould'
/muuvar/	'three persons'

/ o, g /

*/canam/	'jute'
/ganam/	'multitude'

/ o, gh /

/cattam/	'rule'
/ghattam/	'stage'

/ o, s /

/saakku/	'sack'
/saappu/	'shop'

/ o, ī /

/cila/	'some'
/īila/	'rock'

/ o h /

/ointa/	'thought'
/hindu/	'Hindu'



/ o, v /

/cakram/	'wheel'
/vekram/	curved : orwoked

/ oh, g /

*/ohaaya/	'likeness'
/gaayakan/	'musician'

/ oh, gh /

/chennam/	'hidden'
/ghanam/	'weight'

/ oh, m, n, v /

*/ohaaya/	'likeness'
/maaya/	'personal name'
*/ <u>naaya/</u>	'dog'
*/vaaya/	'mouth'

/ oh, n, u, r, l, ɿ, ɿ̄ /

/pucham/	'contempt'
/punam/	'hole'
/punyam/	'goodness'
/puram/	'city'
/pula/	'pollution observed when a relativ is lost'
/puli/	'tamarind'
/pula/	'river'

/ oh, y /

/chatram/	'umbrella'
/yantram/	'machine'

\* j, u, l, /

/jayam/	'success'
/ <u>nayam/</u>	'taot'
/layam/	'absorption'



/ j, a /		
	/vijayam/	'success'
	/vinayam/	'humbleness'
/j, n, /		
	/kuuja/	'goblet'
	/kuu <sup>n</sup> ja/	'mushrom'
/ j, ñ, a\$, l, ɿ /		
	/majja/	'marrow'
	/mañña/	'yellow'
	/maññi/	'became dim'
	/malli/	'coriander'
	/mala/	'rain'
/ j, ɿ, r /		
	/kuuja/	'goblet'
	/kulí/	'bathe'
	/kuura/	'roof'
/ j, s /		
	/jaasti/	'plenty'
	/saaksi/	'witness'
/ j, ŋ /		
	/puujyam/	'cipher'
	/duusyam/	'defect'
/ j, ɿ /		
	/jaati/	'caste'
	/ʃaala/	'chamber': 'hall'
/ j, y /		
	/jaalam/	'multitude'
	/yaatrap/	'journey'
/ jh, m, n, s, ɿ, v /		
	*/jhala/	'daughter'



/mala/	'mountain'
/nalam/	'soon'
/sala/	'total amount of a 'Kuri'
/sila/	'rock'
/vala/	'net'
/ k, g /	
/kanam/	'drop'
/ganam/	'multitude'
/ k , gh /	
/kattu/	'made the ft'
/ghattam/	'stage'
/ k, s, h /	
/kayaR/	'rope'
/sayaR/	'share'
/hayaR/	'higher'
/ kh, g, s, l, r, v, n /	
/khandam/	'piece'
*/gandam/	'cheek'
*/sandam/	'cluster'
/landen/	'London'
/rantu/	'two'
/vantu/	'beetle'
*/nantu/	'crab'
/ kh, m /	
/khanna/	'personal name'
/mannu/	'a measure'
/ g n /	
/ganyam/	'considerable'
/naanyam/	'coin'
/ s, n, ñ, /	
/peggu /	'peg'



/pennu/	'girl'
/peñhal/	'sister'
<b>gh, n /</b>	
/ghattam/	'stage'
/nat̪tam/	'middle part of the body'
<b>gh, l, s, ū, y /</b>	
/meegham/	'cloud'
/meelam/	'festival'
/meesam/	'sheep'
/meesa/	'table'
/meeyam/	'measurable'
<b>/ m, ū /</b>	
/maappu/	'map'
/saappu/	'shop'
<b>/ ū ū , h , v /</b>	
*/nari/	'tiger'
/sari/	'right'
/hari/	'personal name'
/vari/	'row'

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A L L O P H O N I C      D I S T R I B U T I O N

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V O W E L S    A N D    C O N S O N A N T S



## ALLOPHONIC DISTRIBUTION

### VOICES

/ / [i I]

[i I] - High front unrounded tense voiced occurs initially and with length medially and finally

eg:

/illa/	[i l : ^]	'not'
/viittil/	[vi : t : ll]	'in the house'
/ tii /	[ti : ]	'fire'

~ I ]

Lower high front unrounded vowel occurs medially and finally without length

/ e / [e E]

[e E] High front unrounded tense vocoid occurs initially and with length medially and finally.

eg:

/etra /	[e t r^]	'how many'
/peetu /	[p e : tu]	'name'
/annee/	[^ n : e : ]	'on that very day' (emph)

[E ]

Mean mid unrounded vowel occurs medially and finally without length

eg:

/innale/	[i n : e l E]	'yesterday'
/ veli /	[v E l . I]	'out side'

/ a / [ə ʌ ]

[ə ʌ ]

Lower mid unrounded central vowel occurs without length medially in the non-initial syllables.

eg.

/moɔ̄sam/	[m o : s a m ]	'bed'
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## [^]

Lower mid unrounded back vocoid occurs in all other positions

/ alla /	[^ ɿ : ^]	'not'
/ pala /	[p ^ ɿ]	'many'
/ aana /	[^ : n ^]	'elephant'

(When preceded by a velar Consonant the lower and mid unrounded back vocoid tends to become more retracted resulting into a low back unrounded vocoid [a] as in the word / kaakka / [ka : k : a] 'crow')

## / o / [^ o ]

Mid unrounded back vocoid occurs initially medially and with length finally

eg :

/ oru /	[or u]	'one'
/ ko oou /	[k o cou]	'child'
/ tannoo /	[t ^ n : o :]	'is (it) given?'

## / u / [u, ū ]

### [u]

High back rounded tense vocoid occurs initially medially and with length finally

eg :

/ ucoa /	[u co ^]	'mid-noon'
/ kutti /	[ku t : i]	'boy' : 'child'
/ puu /	[pu :]	'flower'

### [ū]

Lower high back unrounded vocoid medially except in the first syllable and word finally without length

/ kru si /	[krus I]	'agriculture'
/ kaattu /	[k ^ : t : u ]	'having waited'

## O O N S O N A N T S

## / p / [b b̄ p ]

Bilabial voiced stop [b] with an onset of heavy voicing which fades towards the end occurs after a homorganic nasal; bilabial semi-voiced continuant [b̄] occurs intervocally; bilabial voiceless stop [p] occurs word initially medially, in clusters and with length.



e.g. /kampani /	[kʌmbənɪ]	'Company'
/ vilaapam /	[vila : bəm]	'lament'
/ pala /	[pʌlə]	'many'
/ kappal /	[kʌp : ʌl]	'ship'

### / ph / [ ph ]

Bilabial voiceless aspirated stop occurs initially and medially

e.g. / phalam /	[phʌləm]	'result'
* / kapham /	[kʌphəm]	'musous of the throat'

(In loan words; (usually in English loan words) the bilabial voiceless aspirated stop [ ph ] freely varies with [ f ], a bilabial voiceless fricative, occurs initially and medially

e.g. / phiisu /	[fiiisu]	'fee'
/ aaphiisu /	[faafiisu]	'office'

### / b / [ b ]

Bilabial voiced stop occurs initially and medially and within clusters.

e.g. / baakki /	[bʌ:k:i]	'balance'
/ klabbu /	[klʌb:bu]	'Club'
/ braahmanen /	[brʌ:m:e:nən]	'Brahmin'

### / bh / [ bh ]

Bilabial voiced aspirated stop occurs initially and medially.

e.g. / bhitti /	[bhɪt:ɪ]	'wall'
/ abhayam /	[ʌbhʌyəm]	'place of protection'
/ abhyartthana / [ʌbhyɑrtthənʌ]		'appeal'

### / t / [ d + t ]

Dental voiced stop [ d ] with an onset of heavy voicing which trails off towards the end, occurs after homorganic nasal, dental voiced continuant with slight friction [ + ] occurs inter-vocally and after / y / and dental voiceless stop [ t ] occurs elsewhere with or without length.

e. g. / canta /	[cʌn dʌ]	'market'
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/ i tu /	[ i <u>tu</u> ]	'this'
/ peytu /	[ p <u>e</u> y <u>tu</u> ]	'showered'
/ tettvette /	[ t <u>e</u> t <u>v</u> e <u>t</u> t <u>e</u> ]	'Principle' (oo)
/ reetri /	[ r <u>e</u> et <u>r</u> i ]	'night'

/ th / [ th ]

Dental voiceless aspirated stop occurs word medially only.

Eg.	/ ketha /	[ k <u>^</u> th <u>^</u> a ]	'story'
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/ d / [ d ]

Dental voiced stop [ d ] occurs initially and medially

Eg.	/ duurem /	[ du:rum ]	'distance'
	/ addeeham /	[ ^d'e:ham ]	'he'
	/ mudra /	[ Mudra ]	'seal'

/ dh / [ dh ]

Dental voiced aspirated stop occurs initially and medially

Eg.	/ dhanam /	[ dhanam ]	'wealth'
	/ vidhem /	[ vIdhem ]	'menner'
	/ eddhyeepike /	[ ^dihy^:pi <u>g</u> ]	'lady teacher'

/ R / [ .t .d .R ]

Alveolar voiceless stop [ t ] occurs with length medially;  
alveolar voiced stop [ d ] after homorganic nasal;  
alveolar trill [ R ] occurs in all other positions.

Eg.	/ kaeRRu /	[ k <u>^</u> : <u>t</u> u ]	'wind'
	/ enRe /	[ e <u>n</u> d E ]	'of me : my '
	/ pa <u>er</u> a /	[ p <u>^</u> :R <u>^</u> a ]	'rock'
	/ Rees <u>an</u> /	[ R <u>e</u> :e <u>n</u> ]	'vation'

/ t̪ / [ t̪ d̪ t̪ ]

Retroflex voiceless stop [ t̪ ] occurs initially, medially  
retroflex voiced stop [ d̪ ] with an onset of heavy  
voicing which fades out towards the end after a homor-  
ganic nasal; end semi-voiced retroflex stop [ t̪ ] occurs  
intervocally.



/ tikkaRRu /	[tIk : e <sub>t</sub> u]	ticket
/ pattu /	[pA t̪ u]	'silk'
/ Rippoorttu /	[Ripɔ:ɔrt̪:u]	'report'
/ rantu /	[rʌn̪d̪ u]	'two'
/ poti /	[po <sub>t̪</sub> i]	'dust'

/ th / [ t̪ h ]

Retroflex voiceless aspirated stop occurs only in the medial position.

Eg.	/ paatham /	[pA:thAm]	'lesson'
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/ d̪ / [ d̪ ]

Retroflex voiced stop [d̪] occurs initially and medially.

Eg.	/ dayal /	[d̪AyAl]	'dial'
	/ admisan /	[Ad̪mIṣan]	'admission'
	/ Reddi /	[R̪ Ed̪ : I ]	'personal name'

/ dh / [ d̪h ]

Retroflex voiced aspirated stop [d̪h] occurs medially only

/ dr̪dhām /	[dr̪Id̪hAm]	'firm'
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/ ɻ / [ ɻ ]

Palatal voiced stop [ɻ] with a heavy voicing which fades out towards the end after a homorganic nasal; Semi-voiced palatal stop [ t̪ ] without length inter-vocally; palatal voiceless stop [ ɻ ] occurs with or without length elsewhere.

Eg.	/ añcu /	[Añɻu]	'five'
	*/ ruci /	[ruɻi]	'taste'
	/ ciri /	[ciɻi]	'laughter'

/ ch / [ ɻh ]

Palatal voiceless aspirated stop [ ɻh ] occurs initially and medially.

Eg.	*/ chatram /	[chAtrAm]	'umbrella'
	/ tucoham /	[tuoochAm]	'a little'

/ j / [ j ]

Palatal voiced stop [ j ] occurs initially and medially.



Eg.	/ jiivan /	[ji : vən]	'life'
	/ vijayam /	[vɪ jayəm]	'success'
	/ uurjjitam /	[u :rj : t̪əm]	'enthusiasm'

/ jh / [jh]

Palatal voiced stop [jh] occurs initially and medially.

Eg.	*/ jhala /	[jhʌlʌ]	'daughter : girl '
	/ nirjhari /	[nɪrjhərɪ]	'stream'

/ k / [g g k]

Velar voiced stop [g] with a heavy voicing which fades out towards the end occurs after a homorganic nasal; Semi-voiced velar Continuant [g̃] occurs inter-vocally and after / y / velar voiceless stop elsewhere.

Eg.	/ pañku /	[pʌŋgu]	'share'
	/ makan /	[məgən]	'eon'
	/ vayki /	[vʌygl]	'became late'
	/ kampani /	[kʌmbəni]	'Company'
	/ raktam /	[rʌktəm]	'blood'

/ kh / [kh]

Velar voiceless aspirated stop, occurs initially and medially.

Eg.	/ khuananam /	[kʰənənəm]	'mining'
	/ meekhala /	[mə:khalʌ]	'zone'

/ g / [g]

Velar voiced stop [g] occurs initially and medially.

Eg.	/ gunam /	[gʊnəm]	'quality'
	/ anugraham /	[ʌnugrahem]	'blessing'

/ gh / [gh]

Velar voiced aspirated stop [gh] occurs initially and medially

Eg.	/ ghattam /	[għat : t̪əm]	'stage'
	*/ meegham /	[mə : ghəm]	'cloud'



/ m / [ m ]

Bilabial nasal [ m ] initially, medially (with or without length) and finally.

/ maram /	[ mʌrəm ]	'tree'
/ mammal /	[ mʌməsl ]	'we'
/ uma /	[ umA ]	'goddess'

/ n / [ n ]

Dental nasal [ n ] occurs initially without length medially with or without length or preceding the homorganic stop.

Eg.	/ naalu /	[ nʌ : lu ]	'four'
	/ nɪnnu /	[ nɪn : u ]	'stood'

/ ñ / [ ñ ]

Alveolar nasal [ ñ ] initially, medially with and in or without length by preceding the homorganic nasal, tan Clusters, and finally without length.

Eg.	/ nyaayam /	[ nyʌ : yəm ]	'justice'
	/ ñaan /	[ ñʌ : n ]	' I '
	/ vanam /	[ vʌnəm ]	'forest'
	/ enRe /	[ end E ]	'of me : my'
	/ vinyaasam /	[ vɪnyʌ : səm ]	'setting up '

/ ñ / [ ñ ]

Retroflex nasal [ ñ ] occurs medially and finally

Eg.	/ maranam /	[ mərənəm ]	'death'
	/ pen /	[ p E n ]	girl

/ ñ / [ ñ ]

Palatal nasal [ ñ ] occurs initially without length and in Clusters, and medially with length except when in Clusters.

/ ñaan /	[ ñʌ : n ]	' I '
/ paññi /	[ pʌññi ]	'cotton'
/ añou /	[ añju ]	'five'

/ ñ / [ ñ ]

Velar nasal [ ñ ] occurs medially with length or in Clusters.



Eg.	/ vaahhi /	[ vʌ: ñ : I ]	'bought'
	/ pañku /	[ pʌ ñgu ]	'share'

/ l / [ l ]

Alveolar lateral [ l ] occurs in all positions.

Eg.	/ lookam /	[ lo:k a m ]	'world'
	/ pala /	[ pʌlʌ ]	'many'
	/ kappal /	[ kʌp : ʌl ]	'ship'

/ ḥ / [ ḥ ]

Retroflex lateral [ ḥ ] occurs in all positions (But its initial occurrence is very limited)

*/ looha /	[ lo: hʌ ]	'The dress of a Christian Priest'
*/ luusi /	[ l u: s a I ]	'personal name'
/ vili /	[ vɪlɪ ]	'calling'
/ makal /	[ mʌgʌl ]	'daughter'

/ ḥ / [ ḥ ]

Retroflex lateral fricative [ ḥ ] occurs medially without length

Eg.	/ mala /	[ mʌlʌ ]	'rain'
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/ r / [ r ]

Alveolar voiced flap [ r ] initially intervocally and as the second constituent in Clusters with / b /, / d /, / g / and either as the first or second constituent with / g /; alveolar trill [ r ] occurs elsewhere.

Eg.	/ raatri /	[ rʌ:tɪ ]	'night'
	/ maram /	[ mʌrəm ]	'tree'
	/ kaaryam /	[ kʌ: ryəm ]	'matter'
	/ braahmanau /	[ brʌ: ñmənəu ]	'Brahmin'
	/ mudra /	[ mu ñdʌ ]	'seal'
	/ aagraham /	[ ^:grəhəm ]	'desire'
	/ avar /	[ avar ]	'they'

/ a / [ a ]

Alveolar voiceless fricative [ a ] occurs initially medially and in clusters.



Eg.	/ satyam /	[ sʌt̬yəm ]	'truth'
	/ vayassu /	[ vʌyəs ʌsu ]	'age'
	/ maasam /	[ mʌ: səm ]	'month'
	/ sthalam /	[ sthʌləm ]	'place'

/ [ ]

Retroflex voiceless fricative /ʂ/ initially medially and in Clusters.

Eg.	/ saappu /	[ s <sup>ə</sup> p : u ]	'shop'
	/ apeeksa /	[ ^ p e: k s ^ ]	'application'
	/ masi /	[ m <sup>ə</sup> s i ]	'ink'

/ ə / [ ə ]

Palatal voiceless fricative /s/ without length initially and with or without length medially.

Eg.	/ sakti /	[sʌktɪ]	'strength'
	/ moosam /	[moʊ:səm]	'bad'
	/ oanhuaesseeeri /	[oʌn̩:ənʌ:s̩:e:s̩:e:rɪ]	'place name'

/ h / [ h ]

Velar voiceless fricative / h / occurs initially and medially without length.

Eg.	/ <u>hi</u> ntu /	[h Indu]	'Hindu'
	/ daaham /	[d^: həm ]	'thirst.'

/ v / [ v ]

<sup>d</sup> Labiogental voiced Continuant / v / occurs initially and with or without length medially.

Eg.	/ vanam /	[vʌnəm]	'forest'
	/ avan /	[əvən ]	'he'

/ y / [ y ]

Palatal Continuant [y] initially medially and in Clusters.

Eg.	/ yaatra /	[ y ^ 'trʌθ ]	'travel'
	/ pooyi /	[ po : y I ]	'went'



S Y L L A B I C      S T R U C T U R E

= = = = =      = = = = = = = =

\*

\*\*\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*



## SYLLABIC PATTERN OF MALAYALAM

### BASIS OF SYLLABIFICATION:

1. Vowel both long and Short or Cluster like / ai / and / eu / Constitutes the nucleus of a Syllable. So they are as many number of Syllables in a word as there are vowels.
2. The Initial Consonants or Consonant Clusters form the onset of the first Syllable. The final Consonant forms the Coda of the final Syllable.
3. Medial Consonants with or without length go with the preceding vowel or vowel cluster.

### SYLLABIC STRUCTURE

In a Syllable, both onset (O) and Coda (C) are optionals and nucleus (N) is obligatory : i.e.

$$S = (O) N (C)$$

Any one of the vowels short or long, Constitutes the nucleus of a Syllable. i.e.,  $N = V$  (V). The onset of the initial Syllable may be any one of the word initial consonants or a consonant cluster.

Any one of the Consonants with or without length or Cluster can form the coda of medial syllable.

## SYLLABIC PATTERN OF MALAYALAM

Mono Syllabic patterns are very few in Malayalam. Disyllabic and trisyllabic words are more. (Disyllabic words are more than tri-syllabic words) Other types are also very fewer in number.



### MONO SYLLABIC WORDS

V	/ i /	'this'
VV	/ ii /	'this'
CVC	/ pen /	'girl'
COVV	/ srii /	'a respectable term'
CVV	/ tii /	'fire'
CVVC	/ keel /	'to hear'
CCVVC	/ skuul /	'School'
CCCVV	/ strii /	'woman'
CCCVVO	/ SRRiil /	'steel'

### Multi Syllabic words :

#### Initial Syllable :

VC	/ ot - i /	'to break'
VVC	/ eel - u /	'seven'
VCC	/ etr - a /	'how many'
VCCCC	/ in SRR-iRRy-uutt - u /	'Institute'
VVCC	/ eeRR - am /	'ascending'
VVCCC	/ aarkk - u /	'who to whom'
OVC	/ tat - i /	'timber'
OVVC	/ peer - u /	'name'
OCVC	/ pmat - i /	'defendent : each'
CCVVC	/ Praan - i /	'creature'
OVCC	/ mantri - i /	'minister'
OVVCC	/ paatr - am /	'vegal'
COVCC	/ praty - eek - am /	'separate'
COVVCCC	/ praartth - an - a /	'prayar'
OVCCCC	/ sabekr - eib - er /	'subscriber'
CCOVVVCC	/ SRRaeRR - i SRR - iks - u /	'statistics'
COOVVCCCO	/ SRRaarcc - u /	'Starch'



### MEDIAL SYLLABLES

VC	/ av-it-e /	'there'
VOC	/ pantr-ant-u /	'twelve'
VVC	/ ap-aak-am /	'immature'
VVOC	/ ulpr-eeks-a /	'a figure of speech'
VVCOO	/ qa-q-uukqm-am /	'with care'

### FINAL SYLLABLE

V	/ vanč-i /	'boat'
VV	/ vaat-ii /	'come (she) on' (voo)
VC	/ viitt-il /	'in house'
VVO	/ var - aam /	'may come'

### DI-SYLLABIC PATTERNS

1. (C) VCV	/ at-i /	'blow : foot'
	/ tal-a/	'head'
2. (C) VOCV	/ ak-am /	'inside'
	/kat-am /	'debt'
3. (C) VVC VC	/ aar-um/	'nobody'
	/ kaal-am /	'time'
4. (C) VVC VVC	/ aak-aam /	'may be',
	/ pook-aam /	'may go'
5. (C) VC VVC	/ it-aam/	'may put'
	/ var-aam /	'may come'
6. (C) VVC V	/ oot-i /	'ran'
	/ kuut-i /	'increased'
7. (C) VCVV	/ anii /*	'personal name' (voc)
	/ manii /*	'personal name' (voc)
8. (C) VVCOVV	/ aaco-ii//	'personal name' (voo)
	/ oeeco-ii/*	'elder sister' (voo)



### TRI SYLLABIC PATTERN

1.	CVCV CVC	Viv-ar-am	'information'
2.	CVVC VVC VC	Saam-aan-am	'substance'
3.	VC VC V	ar-ut-u	'don't be'
4.	CVCC VVC VC	Ceyy-aan-um	'for doing and'
5.	CVC VVC VV	Kum-aar-oo	'personal name' (voc)
6.	CVC VVC V	<u>nir</u> -aa <u>ñ</u> -a	'despair'

### QUADRI SYLLABIC PATTERN

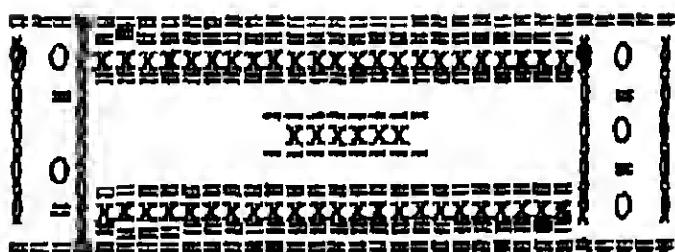
1.	VVC VVC VC V	aar-aadh-an-a	'worship'
2.	CVC VVC VC VC	qah-ood-ar-an	'brother'
3.	CVC VVC VVC VC	qam-aadh-aap-am	'peace'



A N    E X P E R I M E N T A L    S T U D Y

O F

C O N S O N A N T      C L U S T E R S





AN EXPERIMENTAL STUDY OF THE PATTERNS OF CONSONANT CLUSTERS BASED ON 500 SELECTED WORDS

The words for the present study have been taken from the Index and listed as follows.

FROM CONSONANTS

/ k /

ka	beginning words	5
kaa	..	5
ki	..	5
kii	..	5
ku	..	5
kuu	..	5
ke	..	5
kee	..	5
ko	..	3
koo	..	2
Cluster	..	5
		—
		50

/ o /

oa	..	5
oaa	..	5
oi	..	5
oii	..	5
ou	..	5
ouu	..	5
oe	..	5
ooo	..	5
oo	..	5
ooo	..	5



/ t /

ta	..	5
taa	.	5
ti	..	5
yii	..	5
tu	..	5
tuu	..	5
te	..	3
tee	..	3
to	..	5
too	..	5
clusters	..	4
		—
		50

/ p /

pa	..	5
paa	..	5
pi	..	3
pii	..	2
pu	..	5
puu	..	5
pe	..	5
pee	..	5
po	..	5
poo	..	5
clusters	..	5
		—
		50

/ m /

ma	..	5
maa	..	5
mi	..	5
mii	..	5
mu	..	5



uuu	..	5
ee	..	5
oo	..	5
ooo	..	5
		—
		50

/ v /

va	..	10
vaa	..	10
vi	..	10
vii	..	5
ve	..	5
vee	..	5
Cluster	..	5
		—
		50

From Vowels

a	..	30
aa	..	20
i	..	20
ii	..	5
u	..	25
uu	..	3
e	..	20
ee	..	7
o	..	10
oo	..	10
		—
		150

Total words from Consonant section. : 350

Total words from Vowel : 150

Total : 500



LIST OF CLUSTERS AND THEIR FREQUENCY

WORD INITIAL C1 C2 Clusters

	freq.
kt	1
ky-	2
kr-	1
ks-	1
kl-	1
tv-	1
py-	1
pl-	1
pr-	1
ny-	1
vy-	1
<b>11</b>	<b>12</b>

WORD MEDIAL TWO CONSONANT CLUSTERS

Type	Freq.
-kk-	45
-cc-	18
--tt-	29
-dd-	1
-tt-	32
-dd-	2
-pp-	12
-nn-	29
-ññ-	8
-nn-	3
-nn-	5
-nn -	2



- mm -	3
- RR -	11
- ll -	1
- ll -	1
- ss -	1
- ss -	1
- ky -	1
- kr -	3
- gr -	1
- ks -	7
- ks -	7
- tr -	1
- khy -	1
- kl -	1
- jy -	1
- tr -	6
- ky -	3
- pr -	2
- nk -	6
- ng -	5
- no -	3
- lg -	2
- nt -	13
- nt -	3
- mp -	5
- nR -	6
- ny -	1
- rd -	2
- rn -	2
- rv -	2
- rs -	1
- ls -	1



- <u>ls</u> -	1
- <u>sv</u> -	1
- <u>sm</u> -	1
- <u>tv</u> -	1
- <u>ks</u> -	7
- <u>ks</u> -	1
- <u>tm</u> -	1
- <u>och</u> -	1
- <u>dgh</u> -	1
- <u>ddh</u> -	1
<hr/>	
50	<u>291</u>

MEDIAL THREE CONSONANT CLUSTERS

- <u>kR<sup>R</sup></u> -	1
- <u>ykk</u> -	3
- <u>rkk</u> -	1
- <u>rtt</u> -	1
- <u>rjj</u> -	1
- <u>nty</u> -	1
- <u>ndr</u> -	1
- <u>ndhr</u> -	1
- <u>mpy</u> -	1
- <u>lkk</u> -	1
- <u>lpp</u> -	1
- <u>str</u> -	1
- <u>sRR</u> -	1
<hr/>	
13	15



C L A S S I F I C A T I O N   O F   M E D I A L   T W O - C O N S O N A N T   C L U S T E R S :-

I   HOMOELIMENTAL - 01 01 Clusters

-kk-	- <u>nn</u> -	-yy-
-cc-	- <u>ññ</u> -	-RR-
- <u>tt</u> -	- <u>ññ</u> -	-ll-
- <u>tt</u> -	- <u>ng</u> -	- <u>ll</u> -
-dd-	-nn-	- <u>ee</u> -
-pp-	-m̄m̄-	-ss-
Total Numbers	19	
Total frequency	204	
Average Frequency.	10.7	

II

STOP + LIQUID / CONTINUANT / FRICATIVE AS SECOND MEMBER

kr	tr	ky	dy	ks
gr	pr	khy	tv	
tr	kl	jy	ks	
Total numbers		23		
Total frequency.		29		
Average.		2.2		

III

NASAL + STOP / CONTINUANT AS SECOND MEMBER

ñk	ñc	ñt	ñp	ñy
ñg	ñg	ñt	ñr	
Total clusters		9		
Total freq.		44		
Average Freq.		5.0		



IV

LIQUID + STOP / FRI./CONTI. AS SECOND MEMBER

<u>rd</u> ,	<u>rv</u>	<u>rs</u>	<u>ls</u>	<u>ls</u>
Total	6			
Freq.	9			
Average.	1.5			

V S1 + S2 as SECOND ELEMENT ( S1 =stop un aspirated  
( S2 =stop in aspirated )

-cch-	-dgh-	-ddh-
total	3	
freq.	3	
average.	1	

VI OTHER TYPES (HAVING ONLY ONE OCCURANCE EACH)

- a) N1 + N2      nm      freq. 1  
 b) fri + N      em      .. 1  
 c) st + N      tm      .. 1

=====

INITIAL : CLUSTERS :-

I. STOP + LIQ/ CONTI./ FRI. AS SECOND MEMBER

kr, kl, pr, pl, ky, py, tv, ks,	
Total	8
Freq.	9
Average.	1.0

other types only one example each

stop + stop	kt-	1
H + cont.	ny-	1
Cont.+ Cont	wy-	1

The most frequent item of O1 C1 Medial Clusters is -kk-



THREE CONSONANT MEDIAL CLUSTERS

- |    |                            |                                   |
|----|----------------------------|-----------------------------------|
| 1. | K  <br>  S   + RR          | -KRR-<br>-SRR-                    |
| 2. | kk  <br>  tt   + r<br>  jj | -rkk-<br>-rtt-<br>-rjj-           |
| 3. | N + Stop + r/y             | -ndr-<br>-ndhr-<br>-nty-<br>-mpy- |
| 4. | Lateral + C1 C1            | -lkk-<br>-lpp-                    |
| 5. | Fric + St + r              | -str-                             |



C L U S T E R S  
S E S S E S S S E S S S E S S S E S S S  
X X

M A X I M U M  
G R O W T H  
N O R M A L  
R I G H T  
A L I G N M E N T



## C L U S T E R S

In Malayalam, Vowel Clusters are very few; only /ai/ and /au/ Consonant clusters occur only in the initial and medial positions. All the clusters available in the corpus have been listed separately.

### TWO CONSONANT CLUSTERS :-

The following types of two consonant Clusters can be identified.

1.	Stop +	Liquid	initially and medially	
		Continuant	..	..
		Nasal	medially	
2.	Fricative +	Stop	initially, ..	medially ..
		nasal	..	..
		liquid	..	..
		Continuant	..	..
3.	Nasal +	Continuant	initially ..	medially ..
		liquid	..	..
		Stop	medially ..	
		nasal (another)	..	
		fricative	..	
4.	Continuant (v) + liquid (r) -		medially	
5.	liquid +	stop	medially ..	
		nasal	..	
		fricative	..	
		Continuant	..	

Medial two consonant clusters of the form C1 C2 C2 can have /y r l l/ as the first element C1 of the Cluster and some sense of the long stops are nasals as constituting C2 C2.

Three Consonant Clusters are few in the initial position (eg. str, skr) and medially they are more in number. Clusters with more than three elements are very few in speech. But in writing they are possible. It is to be noted that loan words are bringing out new combinations of consonants to form Clusters.



CONSONANT CLUSTERS

Q INITIAL TWO CONSONANT :-

I. STOP + LIQUID (r, l, ll) as Second element

/ kr- /	/ kriya /	'action'
/ gr- /	/ graamam /	'village'
/ tr- /	/ troophy /	'trophy'
/ dr- /	/ draivar /	'driver'
/ dr /	/ dravyañhal /	'matters'
/ pr- /	/ Priya /	'sweet'
/ br /	/ braahmaan /	'Brahmin'
*/ mr /	/ mruti /	'death (only one exception)
/ kl /	/ klassu /	class
/ gl /	/ gluukkoosu /	
/ pl /	/ plaan /	'plan'
/ bl /	/ blookkil /	'in block'

II. STOP + CONTINUANT - (y v)

/ ky /	/ kyaampu /	'camp'
/ jy /	/ jyeestan /	'elder brother'
/ ty /	/ tyuusan /	'tution'
/ py /	/ pyuuttoo /	'place name'
/ by /	/ byuutti /	'beauty'
/ tv /	/ tvakku /	'skin'
/ dv /	/ dviipu /	'island'

III. REDDIT FRICATIVE + STOP / NASAL / LIQUID / CONTINENT : as

SECOND MEMBER

/ sk /	/ skuul /	'school'
/ st /	/ stambhanam /	'halt'
/ sp /	/ spiikkar /	'speaker'
/ sm /	/ smaaraka /	'memorial'
/ sn /	/ sneehitan /	'friend'
/ sr /	/ sramicou /	'tried'
/ sl /	/ slookam /	'staza'
/ sv /	/ svantam /	'own'



WORD MEDIAL HOMOELEMENTAL (C1 C1) CONSONANT CLUSTERS

Nos.	Types	Example	Meaning
1.	-kk-	/kakka/	shell
2.	-ññ-	/vaññhi/	brought
3.	-cc-	/pacca/	green
4.	- jj -	/ lajja /	shyness
5.	- ññ -	/ paññam /	famine
6.	- tt -	/ pattu /	silk
7.	- dd -	/ Raddi /	Personal name
8.	- nn -	/ manneenna /	Kerosine oil
9.	- tt -	/ pattu /	ten
10.	- dd -	/ addeesham /	he (Resps term )
11.	- nn -	/ onnu /	one
12.	- nn -	/ annam /	rice
13.	- pp -	/ kappal /	ship
14.	- bb -	/ Rabbar /	rubber
15.	--mm -	/ sammeanam /	prize
16.	- yy -	/ oeyyaan /	for doing
17.	- R <sup>k</sup> -	/ paR <sup>k</sup> i /	regarding
18.	- ll -	/ alla /	not
19.	vv	/ oovva /	Tuesday
20.	ll	/ ulli /	having
21.	ss	/ vayassu /	age
22.	ññ	/ caññanaasñseeri /	Place name



EXAMPLE LIST FOR WORD MEDIAL TWO CONSONANT (01 02) CLUSTERS

TYPE I

STOP + LIQUID / CONTINUENT / FRICATIVE AS SECOND ELEMENT

/ -kr- /	/ prakriya /	'process'
/ -gr- /	/ aegraham /	desire
/ -tr- /	/ patrool /	petrol
/ -kl- /	/ caakleERRu /	choolate
/ -bl- /	/ pabliku /	public
/ -ky- /	/ vaakyam /	sentence
/ -khy- /	/ mukhya /	chief
/ -gy- /	/ aaroogyam /	health
/ -g̃y- /	/ puujyam /	cipher
/ -ty- /	/ satyam /	truth
/ -dy- /	/ eadyam /	first
/ -dhy- /	/ adhyakṣan /	president
/ -bhy- /	/ labhyam /	that which is available
/ tv /	/ tatvam /	principle
/ ks /	/ aaksiliyaRi /	axillary
/ k̃s /	/ bhakṣanam /	food

TYPE II

<u>LIQUID + STOP / FRICATIVE / CONTINUENT : AS SECOND MEMBER</u>		
/ -rk- /	/ avarkal /	he (a respectful term )
/ rg /	/ vergiyam /	communal
/ rgh /	/ diirgham /	long
/ rd /	/ boordu /	board
/ ry /	/ eviikaaryam /	acceptable
/ rv /	/ appurvan /	rare
/ r̃s /	/ vañsam /	year : rain
/ r̃s /	/ vimarsanam /	criticism
/ rh /	/ arh̃am /	deserving



/ lk /	/ ulkkanta /	anxiety
/ lp /	/ alpam /	a few
/ lb /	/ ulboodhippikka /	say, to make one to understand
/ ly /	/ praabalyem /	in force
/ lv /	/ alvaar /	place name
/ ls /	/ t̄lsavam /	festival
/ lh /	/ delhi /	place name
l <sub>c</sub>	/ aal <sub>c</sub> a /	week
l <sub>s</sub>	/ nalsu /	nurse
l <sub>d</sub>	/ gooldu /	gold

TYPE III

NASAL + STOP / CONTINUENT / FRICATIVE / AS SECOND ELEMENT

/ ñk /	/ pañku /	share
/ ñc /	/ añcu /	five
/ ñj /	/ añjali /	folding hands and placing at breast
/ nt /	/ kantu /	saw
/ nd /	/ mañdapam /	place in front of hindu temple.
/ np /	/ enpatu /	eighty
/ ndh /	/ bañdhu /	relative
/ np /	/ ñonpatu /	nine
/ nR /	/ euRe /	my
/ mp /	/ ñampalam /	salary
/ mb /	/ boombee /	Bombay
/ mbh /	/ sambhavam /	event
/ ny /	/ gañyan /	considerable
/ ny /	/ vinyaasam /	setting up
/ my /	/ sañmyam /	gentle
/ nv /	/ eamvaranam /	reservation
/ ñs /	/ sañsayam /	doubt
/ ms /	/ samearikkuka /	to speak
/ m h /	/ braahmanau /	brahmin
/ ns /	/ ansari /	personal name.

=====  
=====



## P H O N O T A C T I C S

The distributional relationship of the phonological elements is dealt with in this section. The units taken for analysis are single words or fused phrase units.

### V O W E L S :

All vowels both short and long except short vowel / o / occur word initially, word medially and word finally. Short Vowel / o / will not occur in the word final position.

### C O N S O N A N T S :-

All Consonants except / <sup>b</sup> d <sub>g</sub> l / and / <sub>l</sub> r / are capable of occurring in the word initial position. But a very few / <sub>l</sub> r / beginning words are found in the modern language such as / <sup>o</sup> locha / 'the dress of Christian priest.' / <sup>o</sup> luusi / 'personal name' etc. But their frequency is very limited. Similarly the initial occurrences of / n / and / <sup>s</sup> s / are also very rare.

Out of the 37 Consonants, only <sup>eight</sup> Consonants -

/ m n <sub>g</sub> R r l l / and / y / can occur in the word final position. The Velar nasal / <sub>g</sub> / occurs only in the word medial position either with length or in Clusters. All other Consonants are capable of occurring in the initial as well as in the medial positions.

Unlike Vowels, length Contrast for Consonants is found only in the medial position. (e.g. / patam / 'picture' / pattam / 'kite') But length is not possible with Consonants / s, h, r / and / <sub>l</sub> r /. The nasal / <sub>g</sub>, <sub>ñ</sub> / and / <sub>ñ</sub> / occurs medially with length or in Clusters.

The word final consonants except / m / freely varies with / Cu /. When the word is monosyllabic of the pattern CVC, the final C alternates with CCu.



Eg.

kaaR	KaaRu	'Car'
ka <u>au</u>	ka <u>anu</u>	'eye'
kal	kallu	'stone'
kaal	kaalu	'leg'
kal <u>o</u>	kallu <u>oo</u>	'toddy'
va <u>al</u> <u>o</u>	va <u>alu</u> <u>o</u>	'sword'
avar	avaru	'they'
kay	kayyu	'hand'





DISTRIBUTION OF VOWELS - INITIALLY BEFORE CONSONANTS



DISTRIBUTION OF VOWELS - INITIALLY BEFORE  
CONSONANTS EXAMPLE LIST

/ a /

/ akam /	'inside'
/ akhila /	'all'
/ agrikalcar /	'agriculture'
/ aṅgam /	'member'
/ ajit Kumar /	Personal name
/ ati /	'foot'
/ aniyikkuka /	'to bedeck'
/ atinaal /	'because of'
/ athavaa /	'or : otherwise'
/ addeeham /	'he (respectful term)'
/ adhikam /	'excessiveness'
/ annu /	'on that day'
/ anuvaadam /	'permission'
/ apakatam /	'accident'
/ abaddham /	'mistake'
/ abhayam /	'shelter'
/ amarttuka /	'to suppress'
/ ayal /	'neighbouring'
/ ara /	'half'
/ aRivu /	'knowledge'
/ alaku /	'blade'
/ alavu /	'measurement'
/ alimati /	'corruption'
/ ava /	'they'
/ aśaastriyam /	'unscientific'
/ aukham /	'unhealthiness'

/ aa /

/ aake /	'totally'
/ aagata /	'that which come'



/ aaghoo <sup>g</sup> am /	'celebration'
/ aatunnu /	'to swing'
/ aadiRRooRiyan /	'auditorium'
/ aani /	'nail'
/ aatma /	'of the soul'
/ aadar <sup>g</sup> am /	'ideal'
/ aadhaaram /	'basic'
/ aana /	'elephant'
/ aapta /	'believable'
/ aaphiqu /	'office'
/ aabhimukhyattil /	in presence : 'under auspicious'
/ aamukham /	'preface'
/ aayiram /	'thousand'
/ aarambhām /	'beginning'
/ amRu /	'six'
/ aaloocana /	'thinking'
/ aalukal /	'persons'
/ aalca /	'week'
/ aava <sup>g</sup> yam /	'need'
/ aa <sup>g</sup> a /	'desire'
/ aa <sup>g</sup> u /	'ash'
/ aaspadam /	'base' : ' support '
/ aahaaram /	'food'

/ i /

/ i <sup>h</sup> nane /	'this manner'
/ i <sup>h</sup> a /	'middle part'
/ itara /	'other : alternate'
/ innale /	'yesterday'
/ inam /	'kind'
/ iprakaaram /	'this manner'
/ iratti /	'twice double'



/ iRañhi /	'landed'
/ ilakṣan /	'Election'
/ ivar /	'these persons'
/ ii /	
/ iit <u>u</u> /	'security'
/ iil <u>avar</u> /	'Ezhavas' ( a Caste)
/ u /	
/ ucca /	'mid-day'
/ utan /	'at once'
/ un <u>arvu</u> /	'wakefulness'
/ uttaram /	'answer'
/ udaram /	'abdomen'
/ unnayiccu /	'exposed to examination'
/ upakarikkuka /	'to become useful '
/ ummar /	'Personal name '
/ uyarnnu /	'having raised'
/ urukku /	'steel'
/ uRappiccu /	'Confirmed'
/ ulakam /	'world'
/ ulppete /	'inclusive'
/ us <u>nam</u> /	'heat'
/ uu /	
/ uutti /	'place name'
/ uurjjitam /	'enthusiasm'
/ uu <u>smalata</u> /	'the state of hot'
/ e /	
/ ek <u>ceyiñcu</u> /	'exchange'
/ en <u>coiniiyaRigu</u> /	'engineering'
/ etuttu/	'having taken'
/ en <u>na</u> /	'oil'
/ etire /	'against'



/ ennu /	'which day'
/ emikku /	'to me'
/ eppool /	'when'
/ eluti /	'wrote'
/ evite /	'where'
/ ee /	
/ eekam /	'single'
/ eejanRu /	'agent'
/ eerppaatu /	'arrangement'
/ eeRRAvum /	'too much'
/ eepppicou /	'entrusted'
/ eelu /	'seven'
/ eever /	'which persons'
/ o /	
/ okke /	'all'
/ otin̄nu /	'broke'
/ ottu /	'joined'
/ onnu /	'one'
/ onpatu /	'nine'
/ oppu /	'signature'
/ oreo /	'same'
/ orRa /	'one'
/ olin̄nu /	'having vacated'
/ oo /	
/ ooti /	'rain'
/ oophiisu /	'office'
/ ooneelsu /	'honours'
/ oyil /	'oil'
/ oorttu /	'remembered'
/ oovarsiyar /	'oversear'
/ au /	
/ aunsu /	'ounce'
/ audyoogika /	'official'
/ aulkristyam /	'excellency'
/ ausadham /	'medicine'



DISTRIBUTION OF CONSONANTS

(a) INITIALLY BEFORE VOWELS

	a	aa	i	ii	u	uu	e	ee	ai	o	oo	au
k	x	x	x	x	x	x	x	x	x	x	x	x
kh	x	x										
g	x	x	x		x		x			x	x	
gh	x									x		x
ñ												
c	x	x	x	x	x	x	x	x		x	x	
ch												
j	x	x	x	x	x	x	x	x				
jh												
n	x	x										
t	x	x	x	x			x		x			
th												
d	x	x	x	x			x	x		x	x	
dh	x	x	x	x			x		x			
ñ	x	x	x	x			x	x		x		
n	x	x	x	x			x		x	x	x	
p	x	x	x	x	x	x	x	x	x	x	x	x
ph	x	x	x	x	x	x	x	x		x	x	
b	x	x	x	x	x		x	x	x	x	x	
bg	x	x	x	x			x	x		x	x	
m	x	x	x	x	x	x	x	x	x	x	x	x
y	x	x			x	x				x		
r	x	x		x		x		x		x		
R	x	x	x	x			x	x		x		
l	x	x	x	x			x	x	x	x		
l̄												
v	x	x	x	x			x	x	x	x		
s	x	x	x	x	x		x	x		x		
sh	x	x	x	x	x	x	x	x	x	x	x	
h	x	x	x			x		x	x	x	x	



EXAMPLE LIST FOR DISTRIBUTION OF CONSONANTS

INITIALLY BEFORE VOWELS.

/ k- /

-a	katal	sea
-aa	kaatu	forest
-i	kitti	obtained
-ii	kiilil	bottom
-u	kutti	child
-uu	kuuti	increased
-e	ketti	tied
-ee	keettu	hard
-ai	kai	hand
-o	kotuttu	gave
-oo	kooti	ore
-au	kausalam	talent

/ kh /

-a	khananam	mining
-aa	khaadi	khadi

/ g /

-a	gati	way
-aa	gaanam	song
-u	guhya	secret
-ee	geelsu	girls
-oo	goopaalan	Personal name
-au	gauravam	Seriousness

/ gh /

a	ghatikaaram	clock
-oo	ghoosam	ceremonies

/ o /

-a	caritram	history
-aa	caaraa	spy
-i	ciri	daughter



ii	oiittu oo	playing cards
u	ouppi	turned : rounded
-uu	cuutu o	heat
-e	ceyta	did - wish
-ee	ceerettu	made joined
-o	oobli	spoke : said
-oo	ooodyam	question
	/ j /	
-a	jalam	water
-aa	jaati	caste
-i	jille	district
-ii	jiivikkennu	is living
-u	judiayal o o	judicial
-uu	juun o	june
-oo	jooli	work : job
	/ ə /	
-a	ənahal	we
-aa	ənaau	I
	/ ə /	
-a	tan o o	ton
-aa	taaksu o	tax
-i	tikkaRRu o	ticket
-ii	tikk tii o	tea
-e	teknikkal o	technical
-ei	teippisRRu o	typist
	/ ə /	
-a	dayal o	dayal
-aa	daaktar o	doctor
-i	digri o	degree
-ii	diisal o	desal
-e	depoosirRu	deposit
-ehai	deiveelsiphaidu o	deversified
-oo	doonbookkoo o o	name of an institution



/ t /

-a	tati	timber
-aa	taan	oneself
-i	tiricou	started
-ii	tiι	fire
-u	tuni	cloth
-uu	tuukki	weighed
-e	teR <u>h</u> u	mistake
-ee	teeti	insearch of
-o	tottu	touched
-oo	toottam	estate

/ d /

-a	da <u>s</u> am	ten
-aa	daanam	gift
-i	divas <u>am</u>	day
-ii	diirgha	long
-u	dulkhita	sad
-uu	duuram	distance
-ee	deeham	body
-ai	daivam	God
-oo	doosam	badness
-au	daurbhaag <u>y</u> akaram	unfortunate

/ dh /

-a	dhanam	wealth
-aa	dhaatu	mineral
-ii	dhiram	bold
-uu	dhuurttu	lavishness

/ n /

-a	nayam	policy
-aa	naam	we
-i	nila	position



-ii	<u>niikki</u>	removed
-uu	<u>ngyl</u>	thread
-e	<u>nedumaññaadu</u>	Place name
-ee	<u>neeti</u>	achieved
-oo	<u>nookki</u>	looked
/ n /		
-a	<u>nalsu</u>	nurse
-aa	<u>naasanalaisu</u>	nationalize
-i	<u>nimooniya</u>	pneumonia
-e	<u>nehru</u>	Nehru Nehru (personal Name)
-ai	<u>naileen</u>	aileron
-oo	<u>noottiisu</u>	notice
/ p /		
-a	<u>pacca</u>	green
-aa	<u>paatram</u>	vessel
-i	<u>piti</u>	handle
-ii	<u>piidiyaatrik</u>	pediatric
-u	<u>putran</u>	son
-uu	<u>puuja</u>	worship
-e	<u>pen</u>	woman
-ee	<u>peeru</u>	name
ai	<u>paisa</u>	paisa (coin)
-o	<u>potu</u>	common
-oo	<u>pooyi</u>	went
-au	<u>pauran</u>	citizen.
/ ph /		
-a	<u>phalem</u>	result
-aa	<u>phaaRaam</u>	form
-i	<u>philim</u>	film
-ii	<u>phiisu</u>	fees
-u	<u>phul</u>	full
-e	<u>phedaReesam</u>	Federated States
-oo	<u>phon</u>	phone



- - -

/ b /

-a	bandhu	relative
-aa	baalan	boy
-i	birudam	degree
-ii	biiccu	beach
-u	budhan	wednesday
-e	bench	bench
-ee	beesiku	basic
-o	bokkaaRo	Place name
-oo	boodham	conscienceness

/ bh /

-a	bhaaranam	reign
-aa	bhaaram	weight
-i	bhitti	wall
-ii	bhiimam	gigantic
-uu	bhuumi	earth, land
-ee	bheedam	change
-oo	bholoonaath paśvaan	Personal name

/ m /

-a	makan	son
-aa	maasam	month
-i	mitram	ally
-ii	miRBar	metre
-u	mutal	from
-uu	muhla	corner
-e	meccam	better
-ee	meekhala	zone
-ai	maitaanam	maidan
-o	mottam	total
-oo	moosam	bad
-au	maunam	silence



/ y /

-a	yantram	machine
-aa	yaatra	journey
-u	yugathil	in the era
-uu	yuunigan	union
-oo	yoogam	meeting

/ r /

-a	rantu	two
-aa	raatri	night
-ii	riiti	pattern
-uu	ruupa	rupee
-ee	reekha	document
-oo	roogam	disease

/ R /

-a	Rabbar	rubber
-aa	Reattu	wheel
-i	Risarcoou	Research
-ii	Riittu	wreath
-ee	Reesan	ration
-oo	Roodu	road

/ l /

-a	lakkam	number
-aa	laabhakaram	profitable
-i	lisRiu	list
-ii	liigu	league
-e	leyttu	leyth
-ee	leelam	action
-ai	laingikam	sexual
-oo	lookam	world

/ v /

-a	vaka	item
-aa	vaahai	bought



-i	vila	price
-e	vella ee	white
-ee	veeRe	another
ai	vaidyuti	electricity
oo	vo olibaal eo	volleyball

/ ̄ s /

-a	śakti	strength
-aa	śaakha	branch
-i	śila	stone
-ii	śilitam	coldness
-u	śupaarsā	recommendation
-e	śentilkumaar	personal name
ee	śeegi eo	ability
oo	śoocaniiyam	deplorable

/ ̄ g /

-a	sayar	share
-aa	saappu eo	shop
-i	sippuyaardu eo	ship-yard
-u	sunnee eo	personal name
-oo	sooppu eo	shop

/ ̄ e /

-a	satyam	truth
-aa	saahityam	literature
-i	siuima	Cinema
-ii	siita	personal
-u	sukham	comfort
-uu	suukeicou	with care
-e	seuRär	centre
-ee	seevanam	service
-ai	sain	name of a theatre
-oo	sooppu	soap
-eu	maukaryam	convenience



/ h /

-a	hanikkuka	to kill
-aa	h/ <sup>w</sup> kaani	trouble
-i	hind <i>i</i>	Hindi language
-e	hevi	heavy
-ai	haiway	highway
-oo	hoottal <sub>ee</sub>	hotel
-au	hausingu	housing

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## DISTRIBUTION OF CONSONANTS

## MEDIALLY BEFORE VOWELS

	a	aa	i	ii	u	uu	e	ee	ai	o	oo	au
k	x	x	x	x	x	x	x	x	x			
kh	x	x	x									
g	x		x	x	x							
gh		x								x		
h	x	x	x		x				x		x	
c	x	x	x	x	x				x			
ch	x											
j	x	x	x	x	x							
jh												
n	x	x	x		x		x				x	
t	x	x	x		x	x	x	x	x		x	
th	x		x									
d	x		x		x		x					
dh	x										x	
n	x	x	x		x	x	x		x		x	
th	x	x	x	x	x	x	x	x	x		x	
d	x	x	x						x			
dh	x	x	x	x	x	x			x		x	
u	x	x	x		x	x		x	x		x	
n	x	x	x	x	x	x	x	x	x		x	x
p	x	x	x	x	x	x	x	x	x		x	
ph	x		x	x							x	
b	x		x							x	x	
bg	x	x	x		x		x			x	x	
m	x	x	x	x	x	x	x			x	x	
y	x	x	x		x	x				x	x	
r	x	x	x	x		x	x	x	x		x	
R	x	x	x		x	x	x	x			x	
l	x	x	x	x	x	x	x	x	x		x	x
l'	x	x	x		x						x	x
v	x	x	x	x	x	x		x	x		x	
s	x	x	x	x	x	x		x	x			
z	x	x	x		x		x					
h	x	x	x			x				x		



DISTRIBUTION OF CONSONANTS

a

MEDIALLY BEFORE VOWELS

EXAMPLE LIST

/ k /

a	/ akam /	inside
aa	/ pookaan /	to go
i	/ pratyeekiccu /	especially
ii	/ vakkil /	advocate
u	/ aakum /	will become
uu	/ anukuulam /	favourable
e	/ aake /	totally
ee	/ aakeenta /	that which has to become

/ kh /

a	/ meekhala /	zone
aa	/ sakhaakkal /	Comrades
i	/ akhila /	all

/ g /

a	/ avaganans /	disregard
aa	/ roogikal /	patiht
i	/ saangitam /	music
u	/ anugunam /	consonant

/ gh /

aa	/ udghaatanaam /	inauguration
oo	/ eaghooosam /	festival

/ n /

a	/ adhaane /	that manner
aa	/ tutahhaen /	for beginning
u	/ tutahnuka /	beginning
i	/ tutahhi /	began
ee	/ iRaahieenta /	to be descended
oo	/ iinhottu /	to this direction



/ o /

a	/ aaloocaua /	thinging
aa	/ upacaaram /	formality
i	/ aalooccicou /	thought
ii	/ maracciini /	tapioca
u	/ tikaccum $\delta$	wholly
ee	/ matteamoseeri /	place name

/ Oh /

a	/ tucoham /	very little
	/ j /	
a	/ vi jayam /	success
aa	/ raa jaavu /	King
i	/ alarji /	allergi
ii	/ sajiivam /	energetio
u	/ taajuddiin /	personal name

/ ñ /

a	/ paññam /	famine
aa	/ iriññaaalakkuta /	place name
i	/ paññi /	cotton
u	/ paRaññu /	said
uu	/ annuuRu /	five hundred
oo	/ PaRaññoo /	said or ?

/ t̪ /

a	/ atacou /	olosed
aa	/ vitaan /	to release
i	/ piti /	handle
u	/ atutta /	near
uu	/ vettuur /	place name
e	/ kuute /	with
ee	/ paatee /	wholly
oo	/ moottor /	motor



/ <sup>th</sup> /

a	/ paatham /	lesson
h	/ pathiocu /	that which learnt

/ <sup>d</sup> /

a	/ prasidhanRu /	President
i	/ medisin /	medicine
u	/ alindu /	ALIND
e	/ moodeen /	modern

/ <sup>dh</sup> /

a	/ drudham /	firm
---	-------------	------

/ <sup>u</sup> /

a	/ paanum /	money
aa	/ kaanaan /	to see
i	/ pani /	work
u	/ kaanum /	will see
uu	/ mannuur /	place name
ee	/ kaaneenta /	to be seen
oo	/ aangoo /	is (it) so ?

/ t /

a	/ pata /	foam
aa	/ pataaka /	flag
h	/ mati /	enough
ii	/ atiitam /	beyond
u	/ putuma /	newness
uu	/ kunnattuur /	place name
e	/ pookaate /	without going
ee	/ ate /	same
oo	/ atootu /	with it



	/ th /	
a	/ katha /	story
i	/ dusthiki /	bad state
	/ d /	
a	/ udaram /	stomach
aa	/ udasharanam /	example
i	/ ulpaadippikka /	to make
ee	/ uddeesam /	aim
	/ dh /	
a	/ udhariccu /	lifted
aa	/ aadhaaram /	dependences
i	/ nidi /	asset
ii	/ sadhiiram /	boldly
u	/ madhu /	personal name
ai	/ sadhairyam /	with bravery
	/ n /	
a	/ innale /	yesterday
aa	/ ennaal /	but
i	/ ennittum /	even though
u	/ annu /	on that day
ee	/ annee /	from that day onwards (emph)
oo	/ ingoo /	to day?
	/ n /	
a	/ manassil /	in mind
aa	/ pinnaakkam /	back word
i	/ ini /	hereafter
ii	/ eniiti /	in justwice
u	/ manusyan /	man
uu	/ neanuuRu /	four hundred
e	/ utane /	at once
ee	/ itivineeyum /	decreased and



oo	/ manoobhaavam /	attitude
eu	/ anaudyoogika /	non-official
	/ p /	
a	/ vipananam /	selling
aa	/ apaakata /	immatively
i	/ goopi /	Personal name
ii	/ ruupiikamikkuka /	forming
u	/ uppu /	salt
uu	/ apuurvam /	rare
e	/ eerppettu /	engaged
ee	/ apeekka /	application
oo	/ appool /	at that time
	/ ph /	
a	/ viphalam /	unfruitful
i	/ kaaphi /	coffee
ii	/ aaphigu /	Office
	/ b /	
a	/ abadham /	error
i	/ kutumbi /	a Caste
oo	/ ulboodhippiccu /	said
	/ bh /	
a	/ abhayam /	shelter
aa	/ abhaavam /	the state that which is not
i	/ abhipraayam /	opinion
u	/ albhutam /	wonder
oo	/ upabhoogam /	enjoyment
	/ m /	
a	/ caramam /	death
aa	/ tiirumaanicou /	determined
i	/ niyamicou /	appointed
ii	/ samiipiocu /	approached
u	/ samudram /	Sea



uu	/ emuulyam /	in valueble
ee	/ sammeelanam /	meeting
oo	/ labhikkumoo /	Whether (it) will get or
	/ y /	
a	/ vijayam /	success
aa	/ pooyaal /	if went
i	/ pooyi /	went
u	/ avayute /	of them
oo	/ viniyoogiccu /	gent
	/ r /	
a	/karam/	tax
ae	/ paraati /	complaint
i	/ piri /	twiet
ii	/ pariikea /	examination
u	/'guru /	great
uu	/ duruuham /	dis belief
e	/ peere /	persons
ee	/ pareeta /	the woman who died
oo	/ puroogati /	Progres
	/ R /	
a	/ maRa /	screen
aa	/ maaRaate /	without moving
i	/ eeRi /	ascended
ii y	/ maRupati /	reply
uu	/ kuRuur /	house name
e	/ kuRe /	some
oo	/ aaRoomik /	atomic
	/ l /	
a	/ kala /	art
aa	/ vilasapam /	weeping
i	/ paaliocu /	protected



ii	/ kuliina /	noble
u	/ naalum /	four and
uu	/ eluuminiyam /	aluminiam
e	/ innale /	yesterday
oo	/ alooocana /	thinging
	/ l /	
a	/ valartti /	nurtured
aa	/ kollaan /	to absorb
i	/ kali /	play
ii	/ naaliikeeram /	Coconut
u	/ kallu /	toddy
uu	/ gluukkosu /	glucose
e	/ naale /	tommoirrow
ee	/ kooleeju /	College
ai	/ plaivuuddu /	Plywood
oo	/ blookku /	block
au	/ blatusu /	blouse
	/ l /	
a	/ mala /	rain
aa	/ viilaan /	to fall down
i	/ oliihu /	become vacant
u	/ eluti /	wrote
oo	/ taaloottu /	to the bottom
	/ v /	
a	/ ava /	they
aa	/ ulavaakkum /	will inculcate
i	/ maRavi /	forgetfulness
ii	/ dviipu /	island
u	/ kuRavu /	defect
ee	/ aveesam /	spirit & ecstasy



/ ॥ /

a	/ vasam /	side
aa	/ aasaan /	teacher
i	/ vaasi /	obstinacy
ii	/ nasiikarapam /	spoiling
u	/ kaasu /	money
ee	/ nisseeegam /	wholly
oo	/ paatsoodhana /	examination

/ ॥ /

a	/ visayam /	subject
aa	/ visaadham /	gathering
i	/ magi /	ink
u	/ visu /	an important day for Hindus
e	/ pakee /	perhaps
ee	/ kseetram /	temple

/ ॥ /

a	/ avasaram /	opportunity
aa	/ avasaanam /	end
i	/ Pra sidham /	famous
ii	/ asilim /	Personal name
u	/ asukham /	illness
uu	/ assutranam /	planing

/ ॥ /

a	/ sahajam /	natural
aa	/ mahaan /	great man
i	/ daahikka /	to become theirsty
oo	/ sahoodaran /	brother.



DISTRIBUTION OF  
CONSONANTS

## MEDIALLY AFTER VOWELS



D I S T R I B U T I O N   O F   C O N S O N A N T S

E X A M P L E   L I S T

/ -k- /

a-	akam	inside
aa-	aake	totally
i-	atikal	blows
ii-	sriikariccu	accepted
u-	anukuulam	favourable
uu-	muukam	silent
ee-	eeka	single : one
ai-	vaikumneeram	in the evening
o-	lookam	world
au-	aseukaryam	in convenience

/ kh /

aa	saakha	branch
u	asukham	illness
ee	reekha	document

/ g /

a-	avaganana	dis regarding
aa-	avaagatam	welcome
i	pariganana	consideration
ii	liigu	League
u	anugunam	consonant
oo	roogam	illness
ee	veegam	soon

/ gh /

aa	aaghoosam	festival
ii	siighram	quickly

/ ñ /

a	atthane	that manner
aa	vaanthi	bought
i	ithnu	here to this place
ii	niihnaap	to move



u	<u>kunnuñhal</u>	children
e	eñhane	how
ee	teeñha	coconut
<i>/ C /</i>		
a	ayaooa	sent which
aa	aacaaram	customs
i	paricayam	acquaintance
ii	piiocu	beach
u	ucoa	mid-noon
ee	viveeoanam	discretion
<i>/ j /</i>		
aa-	raaji	resignation
i-	vijayioocu	succeeded
uu-	puuja	worship
ee-	peejil	in the page
o-	bayoolo <sup>o</sup> ji	biology
oo	yoojippu	coord
au	eaujanyam	free
<i>/ ñ /</i>		
a	mañña	yellow
i	iriññaalakkut <sup>o</sup> a	place name
<i>/ t /</i>		
a	ataocu <sup>o</sup>	closed
aa	paates <sup>o</sup>	wholly
i	piti <sup>o</sup>	handle
ii	viitu <sup>o</sup>	house
u	mutakku <sup>o</sup>	investment
uu	kuuti <sup>o</sup>	increased
e	petaate <sup>o</sup>	without involving
ee	neeti <sup>o</sup>	gained
o	potinñnu <sup>o</sup>	become powdered
oo	kootai <sup>o</sup> l	court of law

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/    th    /

a	pathikkuka	learning
aa	paatham	lesson

/    d    /

a	adisanal	additional
aa	aadiRRu	audit
i	prasidanRu	President
ii	miidiyam	medium
u	phudu	food
uu	pruudansi	prudence
e	medisin	medicine
ee	Reediyoo	radio
oo	moodal	model

/    dh    /

u	drudham	firm
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/    n    /

a	panam	money
aa	kaanaam	to see
i	daksina	south
ii	viinu	fell down
u	gunam	quality
uu	balikuninRe	of the balloon
e	pennu	woman
ee	veenta	not needed
o	tontu	husk
oo	phoonil	through the telephone
eu	eaunsil	council



	/ t /	
a	pata	foam .
aa	paraati	complaint
i	mitam	normal
ii	aniiti	injustice
u	putuma	newness
uu	muutta	elder
e	metikkuka	thrasting
ee	neetaavu	leader
o	potu	public : common
oo	toothu	rate
	/ th /	
a	athavaa	or : if not
	/ d /	
a	padyam	poetry
aa	ulpaadaanam	projection
i	daariqryam	poverty
oo	oodiccu	asked
au	audyoogika	official
	/ dh /	
a	avadhi	leave
aa	aadhaaram	basic
i	uidhi	treasure
oo	boodham	conscienceness
	/ n /	
a	annu	on that day
i	innu	on this day : to day
u	imunnu	sat
e	ennu	on which day
o	onnu	one
	/ u /	
a	manassu	mind
aa	haani	defect
i	minaRaI	mineral
ii	miinam	a month (ME)
u	munpu	front



	/ p /	
a	/ apakatam /	accident
aa	/ aapattu /	danger
i	/ vipanam /	selling
ii	/ p tiippetti /	matches
u	/ upaayam /	trick
uu	/ ruupikarikka /	forming
e	/ eppool /	when
o	/ oppu /	signature
oo	/ goopi /	Personal name
	/ ph /	
aa	/ aaphisu /	Office
	/ b /	
a	/ abaddham /	mistake
	/ bh /	
a	/ abhayam /	shelter
aa	/ aabharanam /	ornaments
	/ m /	
a	/ caramam /	death
aa	/ saamaanam /	article
i	/ einima /	Cinema
ii	/ bhiimam /	gigantic
u	/ putuma /	newness
uu	/ uuma /	dumb one
e	/ Cempu /	Copper
o	/ ompatu /	nine
oo	/ boombay /	Place name
eu	/ maumkaram /	adulthood
	/ y /	
a	/ vijayam /	success
aa	/ aayi /	became
i	/ viinyoogicou /	spent
ii	/ tiiyum /	five-and
u	/ uyarnnu /	raised



oo	/ pooyi /	went
	/ r /	
a-	/ karam /	tax
aa	/ kaaranam /	reason
i	/ piri /	twist
ii	/ tiirum /	will end
u	/ kuru /	seed
yu	/ kuura /	roof
ee	/ keeralam /	Kerala state
oo	/ pooraan /	for coming
au	/ pauran /	citizen
	/ R /	
a	/ maRa /	screen
aa	/ maaRaan /	for moving
i	/ CiRi /	lips
ii	/ iiRa /	boobu
u	/ kuRe /	come
ee	/ eeRi /	azended
o	/ oRRa /	single
oo	/ ooRma /	rememberence
	/ l /	
a	/ kala /	art
aa	/ naalu /	four
i	/ illa /	not
u	/ ule /	furnace
uu	/ Muuli /	Cooli
e	/ celluka /	to go to <del>uttam</del>
ee	/ lelam /	action
o	/ olluur /	place name
	/ l /	
a	/ kala /	weed
aa	/ kaala /	ox



i	/ <u>ilaya</u> /	younger
ii	/ <u>niilam</u> /	length
u	/ <u>ullil</u> /	inside
	/ <u>l</u> /	
a	/ <u>mala</u> /	rain
aa	/ <u>aaloa</u> /	week
i	/ <u>ilayuka</u> /	to crawl
ii	/ <u>viilum</u> /	will fall down and
oo	/ <u>koola</u> /	bribery
	/ <u>ē</u> /	
a	/ <u>vasam</u> /	side
aa	/ <u>aasa</u> /	desire
i	/ <u>niśa</u> /	night
ii	/ <u>iiśvaran</u> / God	
ee	/ <u>keesavan</u> /	personal name
ai	/ <u>saiśavam</u>	infancy
oo	/ <u>moosam</u> /	bad
au	/ <u>kausalam</u> /	trick
	/ <u>g</u> /	
a	/ <u>masi</u> /	ink
i	/ <u>visayam</u> /	subject
u	/ <u>kugam</u> /	cushion
uu	/ <u>uugmalata</u> /	the state having heat
eu	/ <u>ausadham</u> /	drug
	/ <u>s</u> /	
a	/ <u>avasaram</u> /	opportunity
aa	/ <u>svaasam</u> /	breath
ii	/ <u>phiisu</u> /	fees
u	/ <u>susaadhyam</u> /	easy to come to hand
oo	/ <u>poosRRal</u> /	postal



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/ v /

a	/ avasaram /	opportunity
aa	/ bhaavi /	future
i	/ .divasam /	day
u	/ ouvar /	wall
e	/ evite /	where
ee	/ eevar /	which people ?
ai	/ praivaRku /	private
oo	/ proovidanRu /	provident

/ h /

a	/ sahajam /	inborn:national
aa	/ aahaaram /	food
oo	/ mooham /	desire

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## CONSONANT DISTRIBUTION

## **FINALLY . . . A F T E R      V O W E L S**



D I S T R I B U T I O N   O F   C O N S O N A N T S

WORD FINALLY AFTER VOWELS   EXAMPLE   L I S T .

	/ n /	
a	/ man /	soil
aa	/ kaan /	see
i	*/ vin /	sky
uu	/ tuun /	pillar
e	/ pen /	girl
oo	/ koon /	corner
	/ n /	
a	/ makan /	son
aa	/ varaan /	for coming
i	/ piin /	back
ii	/ miin /	fish
u	/ mun /	front
e	/ thaN /	south
ee	/ teen /	honey
o	/ pon /	gold
	/ r /	
a	/ avar /	they
aa	/ aar /	who ?
ii	/ niir /	swelling
uu	/ paanuur /	place name
ee	/ peer /	name
	/ R /	
a	/kayaR/	rope
aa	/ kaasR/	car
ii	/ sudhiir /	personal name
uu	/ kuuR /	affection : love
ee	/ peeR /	delivery
oo	/ cooR /	cooked rice
	/ m /	
a	/ karam /	tax
aa	/ elleam /	all
u	/ tarum /	will give



	/ l /	
a	/ pal /	tooth
aa	/ paal p /	milk
i	/ peeril /	in name
ii	/ vakkiil /	advocate
uu	/ nuul /	thread
e	/ nel /	paddy
ee	/ meel /	above
ai	/ mail /	mile
oo	/ tool /	skill
	/ l /	
a	/ aval /	she
aa	/ naal /	day
i	/ kavil /	check
uu	/ curul /	roll
eu	/ skuul /	school
ee	/ teel /	scorpion
	/ y /	
e	/ ney /	ghee

